• 45 # PIPE

RAW SEQUENCE LISTING PATENT APPLICATION US/09/418,176

PAGE: 1

DATE: 10/26/1999 TIME: 13:34:27

INPUT SET: S33766.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

| 1 | SEQUENCE LISTING | |
|--|--|----------------------|
| 2 3 (1 | General Information: | |
| 4 5 | (i) APPLICANT: Das, Goutam | |
| 6 7 8 | (ii) TITLE OF INVENTION: DNA Molecules for Expression of Polypeptides | |
| 9 10 | (iii) NUMBER OF SEQUENCES: 4 | |
| 11 12 13 14 15 16 17 | (iv) CORRESPONDENCE ADDRESS: (A) ADDRESSEE: White & Case (B) STREET: 1155 Avenue of the Americas (C) CITY: New York (D) STATE: New York (E) COUNTRY: United States (F) ZIP: 10036-2787 | |
| 19 20 21 22 23 24 | (v) COMPUTER READABLE FORM: (A) MEDIUM TYPE: Floppy disk (B) COMPUTER: IBM PC compatible (C) OPERATING SYSTEM: PC-DOS/MS-DOS (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 | |
| 25 26 27 28 29 | (vi) CURRENT APPLICATION DATA:(A) APPLICATION NUMBER:(B) FILING DATE:(C) CLASSIFICATION: | C F |
| 30 31 32 33 | <pre>(vii) PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: 08/624,398 (B) FILING DATE: 04-APR-1996</pre> | 1700 MAIL ROOM |
| 34 35 36 37 | <pre>(vii) PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: PCT/SE96/00318 (B) FILING DATE: 12-MAR-1996</pre> | בט פופן: _ R00 |
| 38 39 40 41 | (vii) PRIOR APPLICATION DATA:(A) APPLICATION NUMBER: SE 9501939-4(B) FILING DATE: 24-MAY-1995 | |
| 42 43 44 45 46 | (viii) ATTORNEY/AGENT INFORMATION: (A) NAME: Thelma A. Chen Cleland (B) REGISTRATION NUMBER: 40,948 (C) REFERENCE/DOCKET NUMBER: 1103326-0206 | |

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| 47 | | |
|--|----------------|---|
| 48 | (ix) | TELECOMMUNICATION INFORMATION: |
| 49 | | (A) TELEPHONE: (212) 819-8200 |
| 50 | | (B) TELEFAX: (212) 354-8113 |
| 51 | | |
| 52 | | |
| 53 | (2) INFO | RMATION FOR SEQ ID NO:1: |
| 54 | | |
| 55 | (i) | SEQUENCE CHARACTERISTICS: |
| 56 | | (A) LENGTH: 2428 base pairs |
| 57 | | (B) TYPE: nucleic acid |
| 58 | | (C) STRANDEDNESS: double |
| 59 | | (D) TOPOLOGY: linear |
| 60 | | |
| 61 | (11) | MOLECULE TYPE: cDNA to mRNA |
| 62 | , , , , , | INVESTIGATION INC. |
| 63 | (111) | HYPOTHETICAL: NO |
| 64 | (: .) | NAME OF VO |
| 65 | (10) | ANTI-SENSE: NO |
| 66 | (***) | ODICINAL COURCE. |
| 67 69 | (\(\tau \) | ORIGINAL SOURCE: (A) ORGANISM: Homo sapiens |
| 68 69 | | (F) TISSUE TYPE: mammary gland |
| 70 | | (F) 11550E 11FE. Mammary grand |
| 71 | (ix) | FEATURE: |
| 72 | (1) | (A) NAME/KEY: CDS |
| 73 | | (B) LOCATION: 822319 |
| | | |
| 74 | | (D) OTHER INFORMATION: /product= "bile-salt-stimulated |
| 74 75 | lipase | (D) OTHER INFORMATION: /product= "bile-salt-stimulated" |
| 74 75 76 | lipase | |
| 75 | _ | |
| 75 76 | _ | п |
| 75 76 77 | _ | FEATURE: |
| 75 76 77 78 | _ | FEATURE: (A) NAME/KEY: exon |
| 75 76 77 78 79 | (ix) | FEATURE: (A) NAME/KEY: exon |
| 75 76 77 78 79 80 | (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon |
| 75 76 77 78 79 80 81 | (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: |
| 75 76 77 78 79 80 81 82 83 | (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 |
| 75 76 77 78 79 80 81 82 83 84 85 | (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: |
| 75 76 77 78 79 80 81 82 83 84 85 | (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon |
| 75 76 77 78 79 80 81 82 83 84 85 86 | (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 92 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 15762415 |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 92 93 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 15762415 FEATURE: |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 92 93 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 15762415 FEATURE: (A) NAME/KEY: mat_peptide |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 92 93 94 95 | (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 15762415 FEATURE: |
| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 92 93 94 95 96 | (ix) (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 15762415 FEATURE: (A) NAME/KEY: mat_peptide (B) LOCATION: 1512316 |
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| 75 76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 92 93 94 95 96 | (ix) (ix) (ix) | FEATURE: (A) NAME/KEY: exon (B) LOCATION: 9851173 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 11741377 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 13781575 FEATURE: (A) NAME/KEY: exon (B) LOCATION: 15762415 FEATURE: (A) NAME/KEY: mat_peptide (B) LOCATION: 1512316 |

RAW SEQUENCE LISTING PATENT APPLICATION US/09/418,176

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| 101 | (1X) | FEATU | IKE: Name/vev. | repeat_region |
| 102 | | (A) | NAME/REI: | 17562283 |
| 103 104 | | (B) | LOCATION: | 17302203 |
| 104 | (ix) | FEATU | JRE: | |
| 106 | | | NAME/KEY: | |
| 107 | | (B) | LOCATION: | 181 |
| 108 | (;) | חבאתו | IDE. | |
| 109 | (1X) | FEATU | NAME/KEV. | repeat_unit |
| 110 | | | LOCATION: | |
| 111 112 | | (D) | LOCALION. | 17501760 |
| 113 | (ix) | FEAT | JRE: | |
| 114 | | | | repeat_unit |
| 115 | | (B) | LOCATION: | 17891821 |
| 116 | () | FEATU | . שמוי | |
| 117 | (1X) | rear(| JRE: Name/Vev. | repeat_unit |
| 118 | | (A) | LOCATION: | 18221854 |
| 119 120 | | (B) | LOCATION: | 10221034 |
| 121 | (ix) | FEAT | URE: | |
| 122 | (IX) | (A) | NAME/KEY: | repeat_unit |
| 123 | | (B) | LOCATION: | 18551887 |
| 124 | | (2) | 100 | |
| 125 | (ix) | FEAT | URE: | |
| 126 | (| | | repeat_unit |
| 127 | | (B) | LOCATION: | 18881920 |
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| 130 | | (A) | NAME/KEY: | repeat_unit |
| 131 | | (B) | LOCATION: | 19211953 |
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| 133 | (ix) | FEAT | URE: | |
| 134 | | | | repeat_unit |
| 135 | | (B) | LOCATION: | 19541986 |
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| 137 | (ix) | FEAT | URE: | |
| 138 | | | | repeat_unit 19872019 |
| 139 | | (B) | LOCATION: | 19872019 |
| 140 141 | (ix) | FEAT | URE: | |
| 142 | (±31) | (A) | NAME/KEY: | repeat_unit |
| 143 | | (B) | LOCATION: | 20202052 |
| 144 | | | | |
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| 151 | | (B) | LOCATION: | 20862118 |
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RAW SEQUENCE LISTING PATENT APPLICATION US/09/418,176

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| 159 | (B) LOCATION: 21522184 | |
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| 163 | (B) LOCATION: 21832217 | |
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| 170 | (A) NAME/KEY: repeat_unit | |
| 171 | (B) LOCATION: 22512283 | |
| 172 | | |
| 173 | (x) PUBLICATION INFORMATION: | |
| 174 | (A) AUTHORS: Nilsson, Jeanette | |
| 175 | Blackberg, Lars | |
| 176 | Carlsson, Peter | |
| 177 | Enerback, Sven | |
| 178 | Hernell, Olle Bjursell, Gunnar | |
| 179 | (B) TITLE: cDNA cloning of human-milk | |
| 180 | bile salt-stimulated lipase and evidence for its | |
| 181 | identity to pancreatic carboxylic ester hydrolase | |
| 182 | (C) JOURNAL: Eur. J. Biochem. | |
| 183 | (D) VOLUME: 192 | |
| 184 185 | (F) PAGES: 543-550 | |
| 186 | (G) DATE: Sept1990 | |
| 187 | | |
| 188 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1: | |
| 189 | | |
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| 192 | AGTTTATTCA TCCAGAGGCT G ATG CTC ACC ATG GGG CGC CTG CAA CTG GTT | 111 |
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| 194 | -15 | |
| 195 | -23 -20 | |
| 196 | GTG TTG GGC CTC ACC TGC TGC TGG GCA GTG GCG AGT GCC GCG AAG CTG | 159 |
| 197 | Val Leu Gly Leu Thr Cys Cys Trp Ala Val Ala Ser Ala Ala Lys Leu | |
| 198 | -10 -5 | |
| 199 | | |
| 200 201 | GGC GCC GTG TAC ACA GAA GGT GGG TTC GTG GAA GGC GTC AAT AAG AAG | 207 |
| 202 | Gly Ala Val Tyr Thr Glu Gly Gly Phe Val Glu Gly Val Ash Lys Lys | |
| 203 | 5 10 15 | |
| 204 | | 255 |
| 205 | CTC GGC CTC CTG GGT GAC TCT GTG GAC ATC TTC AAG GGC ATC CCC TTC | 200 |
| | | |

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INPUT SET: S33766.raw Leu Gly Leu Leu Gly Asp Ser Val Asp Ile Phe Lys Gly Ile Pro Phe 206 207 208 GCA GCT CCC ACC AAG GCC CTG GAA AAT CCT CAG CCA CAT CCT GGC TGG 303 209 210 Ala Ala Pro Thr Lys Ala Leu Glu Asn Pro Gln Pro His Pro Gly Trp 40 45 211 212 CAN COC ACC CTC AAC CCC AAC AAC TTC AAC AAC ACA TCC CTC CAC CCC

| 213 214 | | | | CTG Leu | | | | | | | | | | | | | 351 |
|------------|-----|-------|------|------------|------|-------|----------|------|------|-------|-----|------|------|------|-------|------|-------|
| 215 216 | | | | 55 | | | | | | ~~~ | ~~~ | a. a | maa | | m 1 0 | GT G | 200 |
| 217 | | | | CAG | | | | | | | | | | | | | 399 |
| 218 | Thr | Ile | | Gln | Asp | Ser | Thr | - | GIY | Asp | Glu | Asp | _ | ьeu | Tyr | Leu | |
| 219 | | | 70 | | | | | 75 | | | | | 80 | | | | |
| 220 | | 3 mm | maa. | ama | 000 | ~~~ | 000 | 700 | 220 | ~~~ | ста | maa | aaa | CAC | OTT C | CCC | 447 |
| 221 | | | | GTG | | | | | | | | | | | | | 44/ |
| 222 | ASI | | Trp | Val | PIO | GIII | 90 91 | Arg | ьуѕ | GIII | val | 95 | Arg | Asp | цец | PIO | |
| 223 224 | | 85 | | | | | 90 | | | | | 93 | | | | | |
| 225 | CTT | איזיכ | አጥር | TGG | ΔΤС | ידעיד | GGA | GGC | GCC | TTC | СТС | ΔТС | GGG | TCC | GGC | САТ | 495 |
| 226 | | | | Trp | | | | | | | | | | | | | 1,5 |
| 227 | 100 | ricc | 110 | 115 | 110 | 105 | 017 | 011 | | | 110 | | | | | 115 | |
| 228 | 200 | | | | | | | | | | | | | | | | |
| 229 | GGG | GCC | AAC | TTC | CTC | AAC | AAC | TAC | CTG | TAT | GAC | GGC | GAG | GAG | ATC | GCC | 543 |
| 230 | Gly | Ala | Asn | Phe | Leu | Asn | Asn | Tyr | Leu | Tyr | Asp | Gly | Glu | Glu | Ile | Ala | |
| 231 | - | | | | 120 | | | _ | | 125 | _ | _ | | | 130 | | |
| 232 | | | | | | | | | | | | | | | | | |
| 233 | | | | AAC | | | | | | | | | | | | | 591 |
| 234 | Thr | Arg | Gly | Asn | Val | Ile | Val | Val | Thr | Phe | Asn | Tyr | Arg | Val | Gly | Pro | |
| 235 | | | | 135 | | | | | 140 | | | | | 145 | | | |
| 236 | | | | | | | | | | | | | | | | | |
| 237 | | | | CTC | | | | | | | | | | | | | 639 |
| 238 | Leu | Gly | | Leu | Ser | Thr | Gly | | Ala | Asn | Leu | Pro | | Asn | Tyr | Gly | |
| 239 | | | 150 | | | | | 155 | | | | | 160 | | | | |
| 240 | | | | ~-~ | ~- ~ | | ~~~ | | a am | maa | a=a | | 3.00 | | 3 m.c | aaa | 607 |
| 241 | | | | CAG | | | | | | | | | | | | | 687 |
| 242 | Leu | | Asp | Gln | HIS | мет | | шe | Ala | Trp | vai | | Arg | ASII | TTE | Ala | |
| 243 | | 165 | | | | | 170 | | | | | 175 | | | | | |
| 244 245 | CCC | ጥጥር | CCC | GGG | GAC | CCC | AAC | אאכ | ΔТС | A C G | CTC | ጥጥር | GGG | GAG | тст | CCT | 735 |
| 245 | | | | Gly | | | | | | | | | | | | | , 5 5 |
| 247 | 180 | FIIC | Gry | Gry | тър | 185 | ADII | ADII | 110 | 1111 | 190 | 1110 | 017 | 0.10 | 001 | 195 | |
| 248 | 100 | | | | | 103 | | | | | 100 | | | | | | |
| 249 | | | | | | | | | | | | | | | | | |
| 250 | GGA | GGT | GCC | AGC | GTC | TCT | CTG | CAG | ACC | CTC | TCC | CCC | TAC | AAC | AAG | GGC | 783 |
| 251 | | | | Ser | | | | | | | | | | | | | |
| 252 | 1 | 1 | | | 200 | | | | | 205 | | | - | | 210 | _ | |
| 253 | | | | | | | | | | | | | | | | | |
| 254 | | | | CGA | | | | | | | | | | | | | 831 |
| 255 | Leu | Ile | Arg | Arg | Ala | Ile | Ser | Gln | Ser | Gly | Val | Ala | Leu | Ser | Pro | Trp | |
| 256 | | | | 215 | | | | | 220 | | | | | 225 | | | |
| 257 | | | | | | | | | | | | | | | | | 050 |
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258 GTC ATC CAG AAA AAC CCA CTC TTC TGG GCC AAA AAG GTG GCT GAG AAG 879

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/09/418,176

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Line

Error

Original Text

544

Stop Codon at end of sequence removed - no error

(2) INFORMATION FOR SEQ ID NO:3: